

## ABSTRACT OF THE DISCLOSURE

A junction diode comprising a first conductive type substrate, a second conductive type embedded region, a second conductive type well, a first conductive type doped region and a second conductive type doped region is provided. The second  
5 conductive type embedded region is formed within the first conductive type substrate. The second conductive type well is formed within the second conductive type embedded region. The concentration of dopants in the second conductive type well is smaller than the concentration of dopants in the second conductive type embedded region. The first conductive type doped region is formed in the second conductive  
10 type well. The second conductive type doped region is formed in the second conductive type embedded region. The junction diode has a smaller capacitance serves as an electrostatic discharge protection device for a radio frequency (RF) circuit without adversely affecting the transmission rate of the RF circuit.